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**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT
ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**

Docket Number (Optional)

HEND-AI

BEST AVAILABLE COPY

First named inventor: Ross, et al.

Application No.: 10/051,968

Art Unit: 3616

Filed: January 16, 2002

Examiner: Toan C. To

Title: SPACER APPARATUS FOR SUSPENSION BEAM BUSHING ASSEMBLIES

Attention: Office of Petitions

Mail Stop Petition

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

FAX (703) 872-9306

NOTE: If information or assistance is needed in completing this form, please contact Petitions
Information at (703) 305-9282.

The above-identified application became abandoned for failure to file a timely and proper reply to a notice or
action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration
date of the period set for reply in the office notice or action plus an extensions of time actually obtained.

APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION

NOTE: A grantable petition requires the following items:

- (1) Petition fee;
- (2) Reply and/or issue fee;
- (3) Terminal disclaimer with disclaimer fee - required for all utility and plant applications
filed before June 8, 1995; and for all design applications; and
- (4) Statement that the entire delay was unintentional.

1. Petition fee☐ Small entity-fee \$ _____ (37 CFR 1.17(m)). Applicant claims small entity status. See 37 CFR 1.27.☒ Other than small entity - fee \$ 790 (37 CFR 1.17(m))**2. Reply and/or fee**

A. The reply and/or fee to the above-noted Office action in
the form of Request for Continued Examination (in duplicate) (identify type of reply):

- ☐ has been filed previously on _____.
- ☒ is enclosed herewith.

B. The issue fee and publication fee (if applicable) of \$ _____.

- ☐ has been paid previously on _____.
- ☐ is enclosed herewith.

[Page 1 of 2]

This collection of information is required by 37 CFR 1.137(b). The information is required to obtain or retain a benefit by the public which is to file (and by the
USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.0 hour to
complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any
comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer,
U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED
FORMS TO THIS ADDRESS. **SEND TO: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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3. Terminal disclaimer with disclaimer fee

- ☒ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.
- ☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ _____ for a small entity or \$ _____ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. STATEMENT: The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137(b) was unintentional (MPEP 711.03(c), subsections (III)(C) and (D)).]

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

David P. Dureska February 23, 2005
Signature Date

David P. Dureska
Typed or printed name

34,152
Registration Number, if applicable

4518 Fulton Drive, N.W., P. O. Box 35548
Address

(330) 491-5289
Telephone Number

Canton, OH 44735-5548
Address

- Enclosures: ☒ Fee Payment (Check in the amount of \$1,500 for Petition Fee for a Large Entity; and Check in the amount of \$790 for RCE fee)
- ☒ Reply
- ☐ Terminal Disclaimer Form
- ☐ Additional sheets containing statements establishing unintentional delay
- ☒ Other: Copy of Response "B" with Affidavit and Exhibits A-C; and Return Receipt Postcard

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.10]

I hereby certify that this correspondence is being:

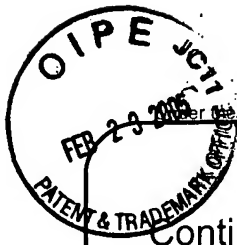
- ☒ Deposited with the United States Postal Service on the date shown below with sufficient postage as Express Mail Label No. EV406993172US under 37 CFR 1.10 in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

- ☐ Transmitted by facsimile on the date shown below to the United States Patent and Trademark Office as (703) 872-9306.

February 23, 2005
Date

David P. Dureska
Signature

David P. Dureska
Typed or printed name of person signing certificate



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**Request
for
Continued Examination (RCE)
Transmittal**Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	10/051,968
Filing Date	January 16, 2002
First Named Inventor	Ross, et al
Art Unit	3616
Examiner Name	Toan C. To
Attorney Docket Number	HEND-AI

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

- a. ☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. ☒ Other Response "B"/Amendment filed on January 31, 2005 (copy enclosed)

- b. ☐ Enclosed

i. ☐ Amendment/Reply

iii. ☐ Information Disclosure Statement (IDS)

ii. ☐ Affidavit(s)/ Declaration(s)

iv. ☐ Other _____

2. **Miscellaneous**

- a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)
- b. ☐ Other _____

3. **Fees**

- The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
The Director is hereby authorized to charge the following fees, or credit any overpayments, to
a. ☒ Deposit Account No. 50-0983*. I have enclosed a duplicate copy of this sheet.

i. ☒ RCE fee required under 37 CFR 1.17(e) *deficiencies only

ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)

iii. ☐ Other _____

- b. ☒ Check in the amount of \$ 790 enclosed

- c. ☐ Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	<i>[Signature]</i>	Date	<u>Feb. 23, 2005</u>
Name (Print/Type)	David P. Dureska	Registration No.	34,152

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail Label No. EV406993172US under 37 CFR 1.10 in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to the U.S. Patent and Trademark Office on the date shown below

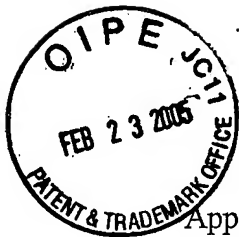
Signature	<i>[Signature]</i>
Name (Print/Type)	David P. Dureska
Date	<u>February 23, 2005</u>

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ross, et al.

Examiner: Toan C. To

Serial No.: 10/051,968

Group Art Unit: 3616

Filed: January 16, 2002

Date: January 25, 2005

For: **SPACER APPARATUS FOR SUSPENSION BEAM BUSHING ASSEMBLIES**

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE "B" AFTER FINAL ACTION UNDER 37 C.F.R. §1.116

Sir:

In response to the final official Action dated July 27, 2004, please amend the above-identified application as follows:

Claim Amendments begin on page 2 of this paper.

Remarks begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A suspension assembly of an axle/suspension system, said assembly having a beam, said beam including a bushing assembly for pivotally mounting the beam on a vehicle frame via a frame hanger, wherein the improvement comprises:

a) means for substantially preventing relative movement of at least one spacer disk disposed between said bushing assembly and said frame hanger, said spacer disk being formed of a generally rigid polymer and generally being prevented from movement relative to the bushing assembly, whereby excessive wear to the spacer disk moving relative to the frame hanger generally is prevented.

2. (Original) The improvement means of Claim 1, in which said means is an integral spacer apparatus; in which said spacer apparatus includes said spacer disk; in which one of said spacer apparatus is vertically disposed between each side of said bushing assembly and a respective one of a pair of spaced sidewalls of said frame hanger; in which at least one collar is formed along at least a portion of the outer periphery of said disk and extends perpendicularly inwardly therefrom toward its respective bushing assembly side; and in which a continuous groove is formed on the surface of the disk adjacent to the bushing assembly and said collar; and in which said groove and the collar provide a complementary fit of the spacer apparatus on a mounting tube of said bushing assembly.

3. (Original) The improvement means of Claim 2, in which a pair of collars are formed on said spacer apparatus; in which a front collar extends along about the front one-half of the spacer disk periphery; in which a top and a bottom rear end of said front collar each provide a stop against a respective one of a top and a bottom wall of said beam to prevent excessive rotation of said disk; and in which a rear collar extends along about one-half of the rear one-half of the disk periphery and is narrower than the front collar.

4. (Original) The improvement means of Claim 1, in which said spacer apparatus is formed in one piece of ultra-high molecular weight polyethylene.

5. (Withdrawn) A suspension assembly of an axle/suspension system, said assembly having a beam, said beam including a bushing assembly for pivotally mounting the beam on a vehicle frame via a frame hanger, wherein the improvement comprises:

a) means for substantially preventing direct contact between substantially non-planar bearing surfaces of said beam bushing assembly and at least one spacer disk disposed between the beam bushing assembly and said frame hanger, whereby excessive wear to the spacer disk from said direct contact generally is prevented.

6. (Withdrawn) The improvement means of Claim 5, in which said means is a load dissipation member vertically disposed between each side of said bushing assembly and its respective spacer disk.

7. (Withdrawn) The improvement means of Claim 6, in which said load dissipation member comprises a ring having a generally planar, vertically extending bearing surface, and a flange which extends perpendicularly in the direction of said bushing assembly for frictionally engaging a mounting tube of the bushing assembly.

8. (Withdrawn) The improvement means of Claim 7, in which said load dissipation member is a one-piece structure integrally formed of steel; in which said flange is a continuous flange formed along the inner periphery of said ring; and in which said flange engages a coped portion of the inside diameter of said mounting tube.

9. (Withdrawn) The improvement means of Claim 5, in which a plurality of load bearing surfaces are formed on each of a pair of spaced sidewalls of said beam and a mounting tube of said bushing assembly; in which each end of said mounting tube is formed with a generally vertically extending flange having substantially planar surfaces, with one of said flanges being wider than the other narrow flange; in which a portion of each of said beam sidewalls adjacent to the mounting tube is formed with an opening and a substantially planar ring surrounding said opening; in which one of said planar rings is wider than the other narrow planar ring; and in which said narrow mounting tube flange abuts the interior surface of said wide

sidewall ring and said wide mounting tube flange abuts the exterior surface of said narrow sidewall ring.

10. (Withdrawn) The improvement means of Claim 9, in which said bushing mounting tube flanges are welded to said beam sidewall rings.

11. (Previously presented) A suspension assembly of an axle/suspension system, said assembly having a beam, said beam including a bushing assembly for pivotally mounting the beam on a vehicle frame via a frame hanger, wherein the improvement comprises:

a) an integral spacer apparatus, said spacer apparatus including a spacer disk, the spacer apparatus substantially preventing movement of said spacer disk relative to said bushing assembly, said spacer apparatus being vertically disposed between each side of the bushing assembly and a respective one of a pair of spaced sidewalls of said frame hanger, front and rear collars being formed on the spacer apparatus along at least a portion of the outer periphery of the disk and extending perpendicularly inwardly therefrom toward its respective bushing assembly side, said front collar extending about a front one-half of said spacer disk periphery, a top and a bottom rear end of the front collar each providing a stop against a respective one of a top and a bottom wall of said beam to prevent excessive rotation of the disk, said rear collar extending along about one-half of a rear one-half of said disk periphery and being narrower than the front collar, a surface of the disk being formed with a continuous groove adjacent to the bushing assembly and said collars, said groove and the collars providing a complementary fit of said spacer apparatus on a mounting tube of said bushing assembly, whereby excessive wear to said spacer disk moving relative to the frame hanger generally is prevented.

REMARKS

Independent Claim 1 and Claims 2-4 dependent therefrom, together with independent Claim 11, remain in the application. Reexamination and reconsideration of the application, as amended, is hereby requested.

Claim 1 has been amended to specify that the spacer disk is formed of a generally rigid polymer. Basis for this limitation appears in the specification at least on page 11, at lines 24-26, and on page 16, at lines 1-3.

Applicants' attorney wishes to thank Examiner To for the courtesies extended to him during the personal interview granted by Examiner To and conducted at the United States Patent and Trademark Office on October 22, 2004.

The amendment to Claim 1 was a result of that interview in which Applicants' undersigned attorney and Examiner To discussed possible amendment, and Examiner To agreed to consider such a proposed amendment reciting in independent Claim 1, in part, a spacer disc having a certain characteristic material.

The Examiner rejected Claim 1 under 35 U.S.C. §102(b) as being anticipated by Japan Publication (JP.11210794). This rejection now is overcome since it is believed that independent Claim 1, as amended, is not anticipated by the '794 publication. Nowhere does the '794 publication disclose the use of a spacer disk formed of a generally rigid polymer which generally is prevented from movement relative to a bushing assembly to in turn generally prevent excessive wear to the spacer disk as the disk moves relative to the frame hanger.

The Examiner also rejected Claim 4 under 35 U.S.C. §103(a) as being unpatentable over the '794 publication in view of FIG. 1 (Prior Art) of the present invention. Had it been so obvious for one having ordinary skill in the art at the time the invention was made to modify the bushing system of the '794 publication, as allegedly taught by FIG. 1 (Prior Art), to be formed of ultra-high molecular weight polyethylene, then it begs the question as to why it was not earlier done. The §1.132 Affidavit attached hereto, which forms a part of this Response, demonstrates the rapid commercial acceptance/success and long-felt need in the art of the claimed invention, which utilizes a generally rigid polymer. Neither of the cited references suggests this specific combination now recited in independent Claim 1.

As evidenced by the attached §1.132 Affidavit, Applicants were the first to recognize the advantages of a spacer disk formed of a generally rigid polymer which generally is prevented

from movement relative to the bushing assembly to thereby generally prevent excessive wear to the spacer disk due to its movement relative to the frame hanger during operation of a vehicle. The results produced by Applicants' invention have been long-sought after by those skilled in the art, but until Applicants' invention, the results have not been obtained. The Affidavit also unequivocally proves rapid commercial acceptance of Applicants' invention, as well as sustained and increasing commercial acceptance/success.

The above amendments were necessitated by the above-noted interview. More specifically, it is believed that the amendment is necessary because it effectively overcomes the prior art, and was not earlier presented because earlier prosecution did not focus on the material of the spacer disk as being a limitation which overcomes the prior art of record.

Applicants thank the Examiner for his indication of allowable subject matter in Claims 2, 3 and 11.

In view of the above amendment and remarks, it is submitted that the claims now are in condition for allowance, and reconsideration of the rejections is hereby respectfully requested and allowance of Claims 1 and 4 at an early date is hereby earnestly solicited.

Respectfully submitted,

BUCKINGHAM, DOOLITTLE & BURROUGHS, LLP



By: David P. Dureska, Registration No. 34,152

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Attorney Docket No.: HEND-AI (45007-144)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ross, et al.

Examiner: Toan C. To

Serial No.: 10/051,968

Group Art Unit: 3616

Filed: January 16, 2002

For: SPACER APPARATUS FOR SUSPENSION BEAM BUSHING ASSEMBLIES

AFFIDAVIT UNDER 37 C.F.R. § 1.132

STATE OF OHIO)
) ss:
COUNTY OF STARK)

John Edward Ramsey, being duly sworn, does hereby depose and say as follows,
having personal knowledge of the facts sworn to herein:

1. That he attended college at the University of Akron from 1970 to 1972 and 1983;
and Kent State University from 1973 to 1974; and Broward Community College from 1976 to
1979; and graduated summa cum laude from Walsh University with a bachelor's degree in
business in 2002.

2. That he completed course work in subject matter including math, machine design,
DC and AC currents, chemistry, physics and graphics;

3. That he was employed at Spectrum Designs, Novatronics and Wean United from
about 1972 to about 1980;

4. That during his employ at Spectrum Designs he designed tooling for Pratt & Whitney Aircraft Engines;

5. That he worked in Electromechanical Design at Novatronics;

6. That he worked as a machine shop helper at Wean United;

7. That he has been employed by Hendrickson Trailer Suspension Systems, a division of The Boler Company, in Canton, Ohio, or its predecessors in interest, since about 1980, first as a suspension designer;

8. That in about 1983 to 1984, he was promoted to a design engineer;

9. That in about 1987, he was promoted to a project engineer;

10. That in about 1991, he was promoted to a principal engineer;

11. That in about 1995, he was promoted to senior principal engineer;

12. That in about 2000, he was promoted to Manager of New Product Development and currently holds that position;

13. That "glove washer" and "cap style spacer" each is a term used to describe the invention claimed in Claims 1-4 and 11 of U.S. Patent Application Serial No. 10/051,968 filed January 16, 2002, and assigned to The Boler Company.

14. That under his direction, two graphs were prepared, attached as Exhibits A and B to this Affidavit, showing, respectively, for each of the years 2003 and 2004, the number of cap style spacers sold directly to customers for use on existing customer suspension assemblies, and the number of cap style spacers used by The Boler Company on its suspension assemblies sold to its customers; and that such sale and use figures include cap style spacers sold and used by all U.S. and international divisions/operations/companies of The Boler Company.

15. That the 2003 graph shows rapid acceptance after commercial introduction of the cap style spacers of The Boler Company, as well as sustained commercial acceptance/success.

16. That the 2004 graph shows increasing commercial acceptance/success of the cap style washers.

17. That he compiled the Glove Washers Regional Managers Reports attached hereto as Exhibit C.

18. That the individual glove washer questionnaires which form a part of the Glove Washer's Regional Managers Reports are labeled "CUSTOMER A-H." That in each questionnaire, the company name of the customer, its address, its contact, the date, its phone, the trailer builder, the suspension, the configuration, the trailer D.I.S. and the serial number, together with other selected information on certain questionnaires, have been redacted at his direction due

to the confidential and/or proprietary and/or sensitive business information nature of such redacted information.

19. That the glove washer questionnaire completed and submitted to Hendrickson by Customer A and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

20. That the glove washer questionnaire completed and submitted to Hendrickson by Customer B and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

21. That the glove washer questionnaire completed and submitted to Hendrickson by Customer C and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

22. That the glove washer questionnaire completed and submitted to Hendrickson by Customer D and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.


23. That the glove washer questionnaire completed and submitted to Hendrickson by Customer E and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

24. That the glove washer questionnaire completed and submitted to Hendrickson by Customer F and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

25. That the glove washer questionnaire completed and submitted to Hendrickson by Customer G and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

26. That the glove washer questionnaire completed and submitted to Hendrickson by Customer H and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

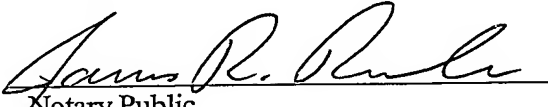
Further Affiant sayeth not.


JOHN EDWARD RAMSEY

BEFORE ME, a Notary Public in and for said County and State, personally appeared **John Edward Ramsey**, who signed the foregoing AFFIDAVIT in my presence and who acknowledged the same to be his free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this 19th day of January, 2005.

(SEAL)


Notary Public

Attorney Docket No. HEND-AI (45007-144)

«CT2:429424_1»

Cap Style Spacers Sold and Used 2003

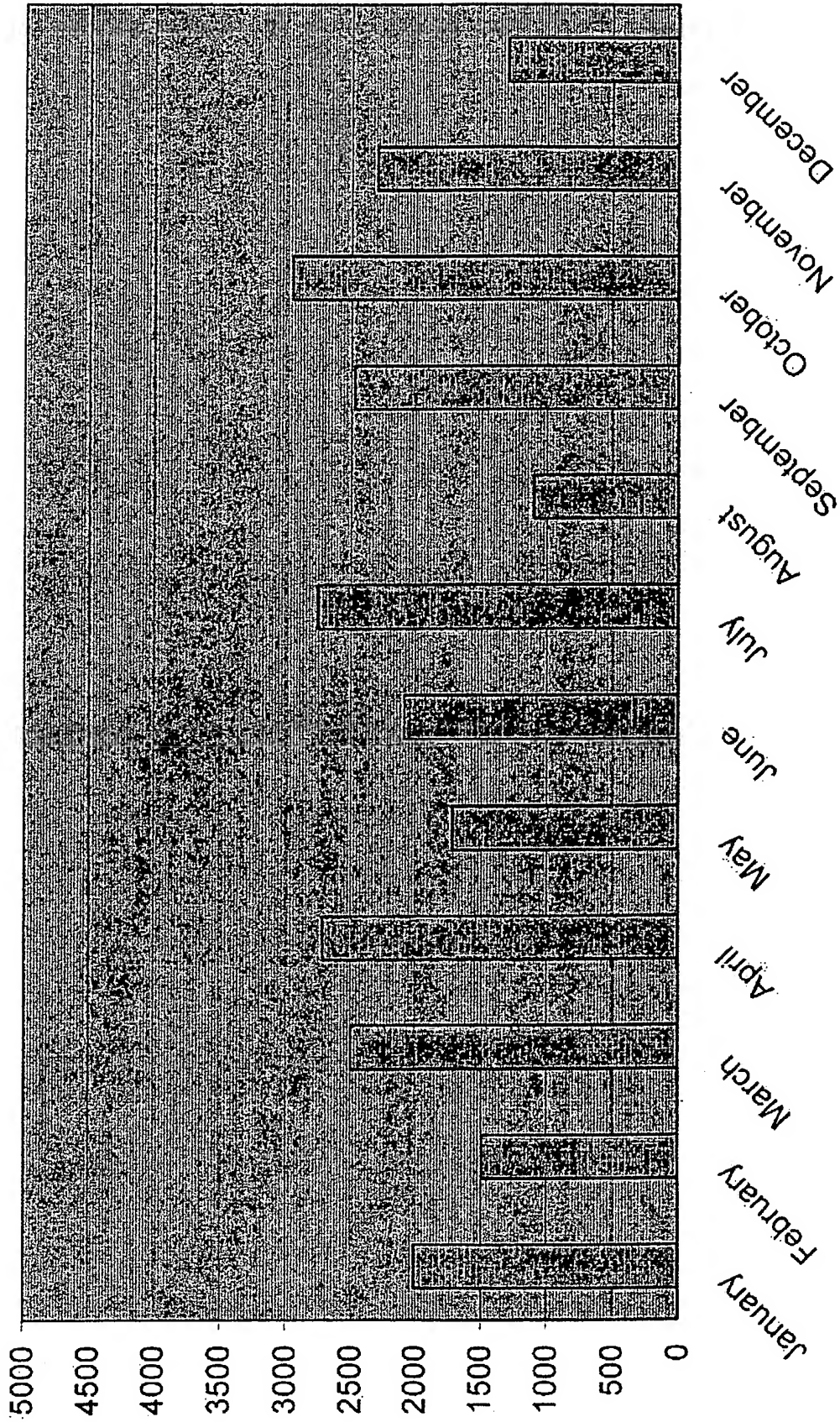
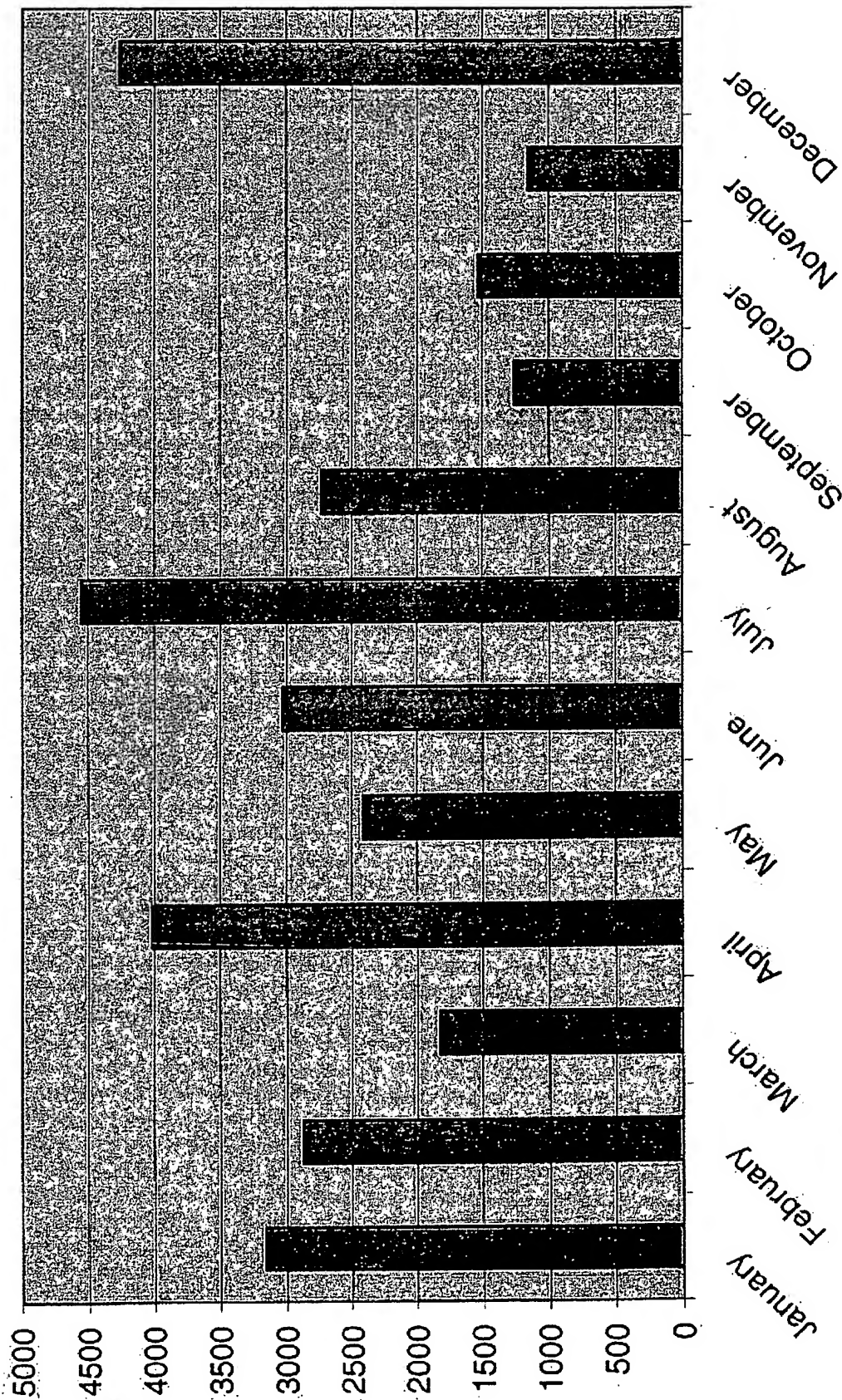


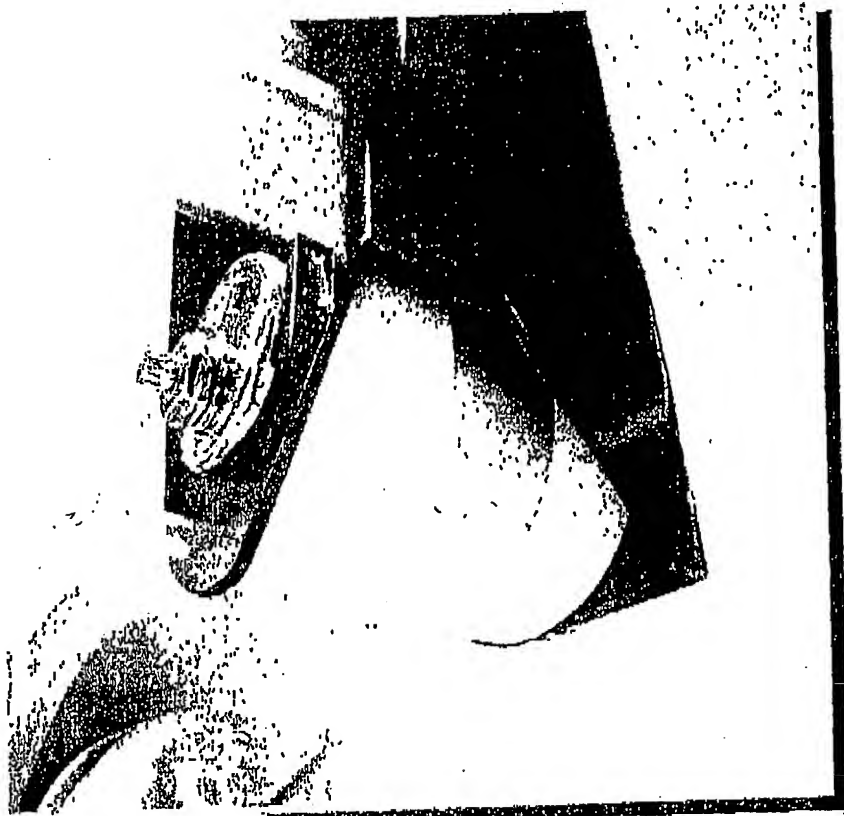
EXHIBIT A

Cap Style Spacers Sold and Used 2004



Glove Washers

REGIONAL MANAGERS REPORTS



February 2004

EXHIBIT C



GLOVE WASHER QUESTIONNAIRE

Company Name:		Date:	
Address:			
Contact:		Phone:	
Trailer Builder:		Suspension:	
Configuration:		Trailer D.I.S	
Serial No:			
Glove Washers	Date Fitted:	03/03	Date Removed: In Service

History: Original (White) Wear Collars Were Giving Around 4 To 6 Months Service. Fleet Believed This Unacceptable Due To Time Down And Labour Rates.
Fleet Purchased Grey Flat Collars For Installation To Have Them Fall Out After Only Weeks Of Service.
Failure Not Picked Up As Vehicles Working In Western Queensland.
Damage Was Done To Hangers And Trailing Arms.
Due To These Facts We Supplied A Triaxle Set Of The Trial Glove Type Wear Collars.
These Were Installed In March 2003. Unit Still Has These Original Collars Fitted.

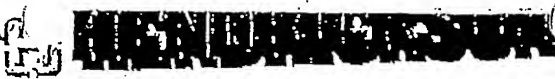
Operators Comments:

Glove Type Collars Have So Far Lasted 3 Times The Amount Of Time The Flat Collars Were In Service.
Fleet Is Happy With These Results At This Time.

Regional Managers Comments:

Unfortunately Due To The "Success" Of The Glove Collars The Fleet Will Not Take Them Out For Analysis.
Comments From Trailer Fleets And Builders In Queensland Have Been That We Have A Great ' Highway ' Suspension But It Is No Good For Any Off-Road Work. Applications Such As Logging, Livestock And Mining Have Given Me Many Sleepless Nights.
My Conclusion Based Upon Current Available Data Is The The Collars Work Very Well. In Some Of These Applications If A Fleet Gets 12 Months Or More From A Wearable Part, They Are Happy. Going Standard With these Washers Is A Definate Product Improvement In My Book.

CUSTOMER A



GLOVE WASHER QUESTIONNAIRE

Company Name		Date:	
Address:			
Contact:		Phone:	
Trailer Builder:		Suspension:	
Configuration:		Trailer D.I.S	
Serial No:			
Glove Washers	Date Fitted:	November 2003	Date Removed:

History:

have had a history of their Tippers with fitted, chopping out the wear pads and Bush Migration.

This tanker has experienced the same issues with

Rays must turn sharply on concrete pads when loading and unloading

Operators Comments:

It is early days yet, but since fitting to have also fitted to units progressively

There appears to be a significant improvement with very little evidence of wear in the glove washers

Regional Managers Comments:

This has been an ongoing issue with the fleet and caused them to revert to on the last order.

Their confidence in our Suspension has been increased with this change.

CUSTOMER B

GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	November 2003	Date Removed:

History:

[REDACTED] Road Train Tankers run from Adelaide to Moomba Gas Fields over Bitumum roads with the last 200 kms unmade gravel road

Wear pads completely gone after only 6 months of operation, bushes also migrating.

Got to be a major improvement

Drivers also have expressed significant improvement in handling and stability

Operators Comments:

[REDACTED] is marketed as a Extreme Duty Package.

Glove washer is absolute must if we are to regain customer confidence and retain the business of A major national fleet.

Regional Managers Comments:

This has been an ongoing issue with the fleet and caused them to revert to [REDACTED] on the last order.

Their confidence in our Suspension has been increased with this change.

[REDACTED]

by [REDACTED]

GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	November 2002	Date Removed: Still in Service

History:

The type of application of these Cane Trailers is severe

The Standard wear pads that were used prior on this trailer only had a six month service period.

Operators Comments:

The fleet owner has had trouble tracking the trailer, But has found it: [REDACTED]

The trailer has now covered 250,000 km since the glove washers were installed

and is more than happy with the results,

The fleet has purchased new tankers since and have been fitted with [REDACTED] Glove washers.

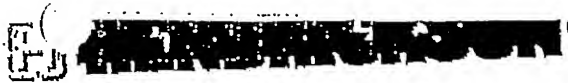
The general condition of the wear washers is "Very Good"

Regional Managers Comments:

From my point of view and comment from other fleets,

The Glove washer is a great Upgrade.

CUSTOMER D



GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]	
Address:	[REDACTED]			
Contact:	[REDACTED]	Phone:	[REDACTED]	
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]	
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]	
Serial No:	[REDACTED]			
Glove Washers	Date Fitted:	December 2002	Date Removed:	October 2003

History:

12 Glove style washers supplied by Hendrickson were fitted to a [REDACTED] Tipper on 20th December 2002
The trailer has travelled approx. 180,000 km or more.

At the moment there is no sign of hanger wear or migration.

Since the first set of washers were fitted we now fit them as standard fitment when bushes are replaced.

Operators Comments:

The old style washers are nothing but trouble – allowing beam migration on the bush

The beam then rubs on the inside of the hanger cutting a circle and wearing the hanger, which in turn needs replacing.

The same washer wears the centre out and gives no support at all.

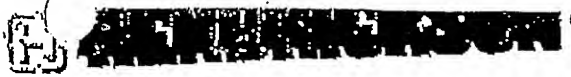
I can highly recommend the fitting of the Glove washer to reduce all problems from the previous style washers.

Regional Managers Comments:

Customer is very happy with overall results.

This operator runs 50% Off Road.

CUSTOMER E



GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	December 2003	Date Removed:

History:
Customer has accepted regular replacement of wear pads due to severe conditions encountered in Northern Australia.
Dish Migration has been an issue, but only if the wear pads were not maintained.

Operators Comments:
Too early to tell, but has got to be a major improvement.
Drivers have commented on improved handling characteristics on multi trailer road trains.

Regional Managers Comments:
Product improvement to reduce maintenance has got to be a priority to retain major fleet customer.

[REDACTED]

CUSTOMER F

GLOVE WASHER QUESTIONNAIRE

Company Name			Date:	
Address:				
Contact:		Phone:		
Trailer Builder:		Suspension:		
Configuration:		Trailer D.I.S		
Serial No:				
Glove Washers	Date Fitted:	July 2002	Date Removed:	Still in Service

History:

These are specialty trailers used to pick up 20 Ton bales of cotton from the field and transport them to the Gin for processing. During the season they operate around the clock for approx. 3 months at a time. These trailers are always turning on tight pads at each end of the trip. Previously the trailers had to be taken out of serviced to change the wear pads at least once during the season - with the resultant down time.

Operators Comments:

These are high capital value (\$350,000) units that must be utilised to maximum capacity during the Season. The units have a 1 hour maintenance period between shifts and premature failure of the washers Could not be accommodated for - this meant the units wear kept working with resultant **hanger wear** - we have tried some fixes of our own with not a lot of success. When these become available we only too willing to try them - they have been a great success and We are into our 3rd season with not a failure. To say we are happy would be an understatement. We were almost ready to pull the **out** We have changed our whole fleet to these, including our Road Train Tippers and specified it on our new Tipper trailers.

Regional Managers Comments:

The owners comments show how please they are with this improvement. Here was a customer who was about to cut the **off** and now is specing it on new trailers.

CUSTOMER G



FRANKLIN

GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	July 2002	Date Removed:

History:

This customer has had a long history of [REDACTED] Bush Migration on trailers Tippers and Dollies In mining and Off Road applications on Road Trains.

They have tried many "Fixes" including making their own "Bush".

Wear pads normally last 3 months and bush migration starts soon after.

Operators Comments:

Dolly has been operating non stop in [REDACTED] Mining operation [REDACTED] and the Site Maintenance

Manager is "very Happy" with the Dolly.

Can't get it back to the workshop to remove the Glove Washers as nothing has gone wrong and do not want to take it out of service.

Regional Managers Comments:

This fleet has gone to other suspension suppliers for all their gear since 2001, mainly due to the Bush Migration issue.

The fact that the Glove Washers are working is a good start to winning back their business.

CUSTOMER H

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